

<p align="center"><b>DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT</b> Housing - Federal Housing Commissioner</p> <p><b>TO: DIRECTORS, SINGLE FAMILY HOCs</b> <b>DIRECTORS, MULTIFAMILY HUBs</b></p>	<p><b>Series and Series Number:</b> <b>MATERIALS RELEASE NO: 971f</b> (Supersedes issue dated January 28, 1990)</p>
	<p><b>ISSUE DATE</b>  December 2, 2002</p>
	<p><b>REVIEW DATE</b>  December 2, 2005</p>
<p><b>SUBJECT:</b>    1.    <b>Product</b>    Spiro Vinyl-Cote Plastic (PVC) Coated Steel Air Duct</p> <p>                  2.    <b>Name and address of Manufacturer</b>    NewMech Companies, Inc.    Spiro Pipe Division    1633 Eustis Street    St. Paul, MN 55108</p>	

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development (HUD) and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement or approval by HUD of the described product, and any statement or representation, however made, indicating such approval or endorsement by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: An air duct for perimeter heating and cooling distribution systems in or under concrete slab floors on grade.

#### DESCRIPTION:

Spiro Vinyl-Cote air ducts are spirally wound round ducts made from galvanized sheet steel fused with a 4 mil thickness on the exterior surface, and a 1 mil thickness on the interior surface. Ducts 3" to 24" in diameter are made of 4 ply spiral lockseam type sheet steel. Ducts greater than 24" diameter up to 54" are 4 ply spiral lockseam and corrugated.

#### REQUIREMENTS:

Spiro Vinyl-Cote ducts shall comply with UL 181 "Standards for Factory-Made Air Duct and Connectors". All galvanized sheet steel used in the duct shall comply with ASTM A 653-96 and A 924-96. The thickness of the sheet steel shall be as follows:

Diameter of Duct (inches)	Thickness of Sheet (inches)	Tolerance (inches)	Gauge
3 to 8	0.0179	$\pm 0.003$	26
greater than 8 to 16	0.0239	$\pm 0.003$	24
greater than 16 to 24	0.0299	$\pm 0.003$	22
greater than 24 to 54	0.0359	$\pm 0.003$	20

**INSTALLATION:**

All installations shall be made in accordance with the manufacturer's instructions.

1. Spiro Vinyl-Cote air ducts shall be used only in or under concrete floor slab on grade.
2. Field connections shall be made with the use of factory-made slip coupling connections, fastened by sheet metal screws and covered with Hardcast tape and Hardcast Adhesive or equivalent. All remaining exposed raw edges, screws or metal shall be coated with factory-made supplied, brushed-applied, touch-up coating. The 10 mil, 4" wide tape shall provide a 2" lap on each duct or fitting, and 4" overlap at the tape end.
3. The heating unit used with these air ducts shall be:
  - a. electrical resistance or heat pump, or automatically fired gas or oil furnace;
  - b. equipped with a temperature limit control having a maximum setting of 200°F; and
  - c. located at or above floor level.
4. A continuous vapor barrier membrane shall be installed under the slab and under the ducts.
5. Ducts shall be sloped at least 1/8" per foot toward the plenum chamber, and the bottom of perimeter ducts shall be no lower than the exterior finish grade.

**GUARRANTY:**

NewMech Companies, Inc., Spiro Pipe Division guarantees this ducting under normal use for four (4) years from the date of installation. Should any defect occur, NewMech Companies, Inc., Spiro Pipe Division will make a pro rata allowance for replacement of the defective products.

**MANUFACTURER'S RESPONSIBILITIES:**

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office Manufactured Housing Programs, FHA Standards, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to:

U. S. Department of Housing and Urban Development  
Office of Manufactured Housing Programs, FHA Standards  
451 7<sup>th</sup> Street, SW, Room 9152  
Washington, DC 20410-8000

Appropriate user fee shall be sent to:

U. S. Department of Housing and Urban Development  
Technical Suitability of Products Fees  
P. O. Box 954199  
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

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This Materials Release is issued solely for the captioned firm, and is not transferable to any person or successor entity.

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